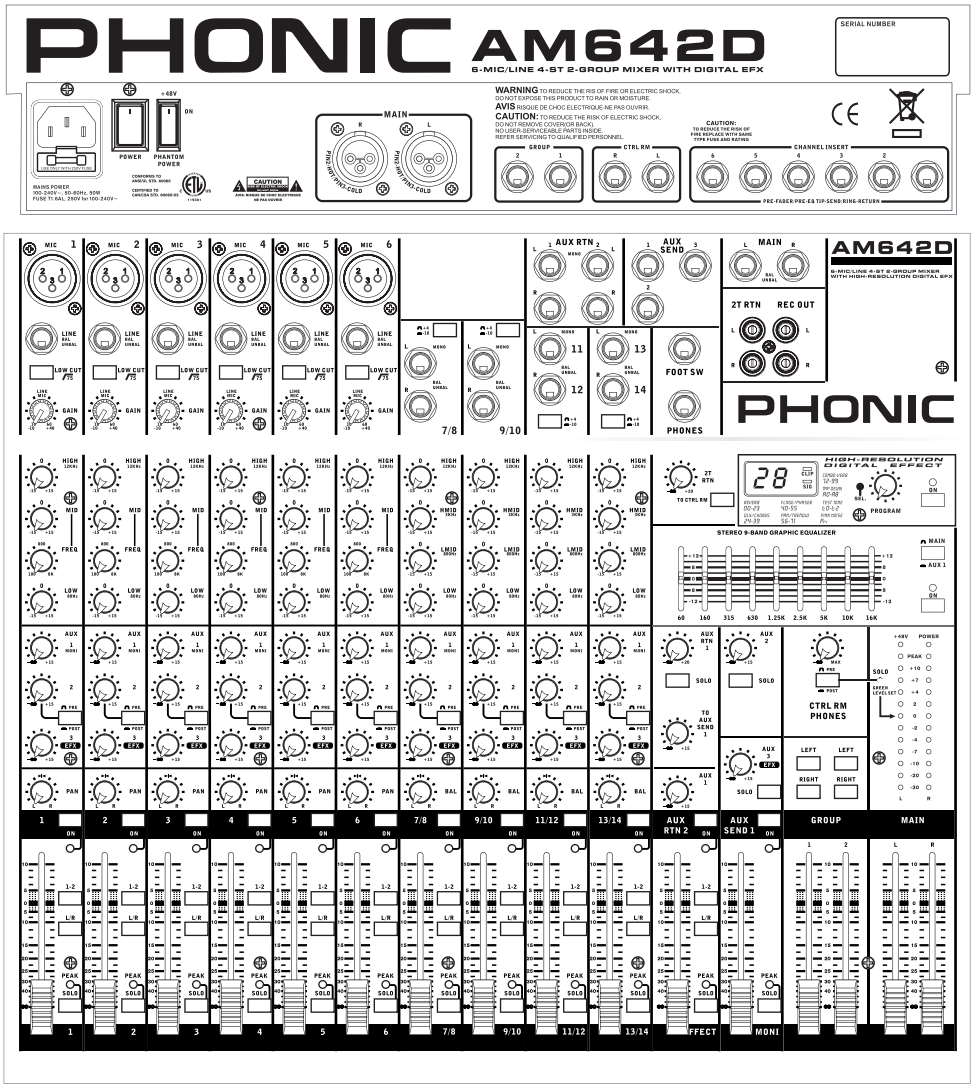
PHONIC

# AM 442D
# AM 642D

COMPACT MIXERS




AM 642D

English

**User's Manual**

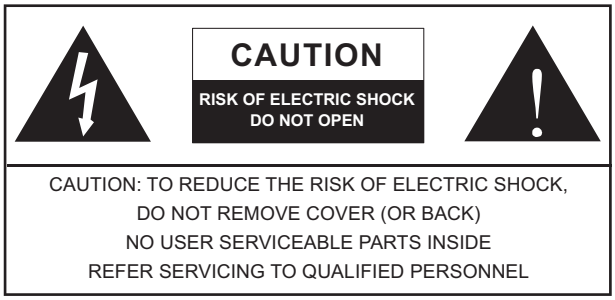
# IMPORTANT SAFETY INSTRUCTIONS

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus. The MAINS plug is used as the disconnect device, the disconnect device shall remain readily operable.

**Warning**: the user shall not place this apparatus in the confined area during the operation so that the mains switch can be easily accessible.

1. Read these instructions before operating this apparatus.
2. Keep these instructions for future reference.
3. Heed all warnings to ensure safe operation.
4. Follow all instructions provided in this document.
5. Do not use this apparatus near water or in locations where condensation may occur.
6. Clean only with dry cloth. Do not use aerosol or liquid cleaners. Unplug this apparatus before cleaning.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lighting storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED PERSONNEL

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

**CAUTION:** Use of controls or adjustments or performance of procedures other than those specified may result in hazardous radiation exposure.

# AM442D/642D

## Compact Mixers

USER'S MANUAL

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Phonic reserves the right to improve or alter any information suppied within this document without prior notice.

V1.0 APR 14, 2006

## Introduction

Thank you for choosing one of Phonic's many quality compact mixers. The brand new AM 442D and AM 642D Mixers – designed by the ingenious engineers that have created a variety of mixers fantastic in style and performance in the past – display similar proficiency that previous Phonic products have shown; with more than a few refinements, of course. Featuring full gain ranges, amazingly low distortion levels, and incredibly wide dynamic ranges, these amazing mixers are bound to make a big splash in the world of mixing.

We know how eager you are to get started – wanting to get the mixer out and hook it all up is probably your number one priority right now – but before you do, we strongly urge you to take a look through this manual. Inside, you will find important facts and figures on the set up, use and applications of your brand new mixer. If you do happen to be one of the many people who flatly refuse to read user manuals, then we just urge you to at least glance at the Instant Setup section. After glancing at or reading through the manual (we applaud you if you do read the entire manual), please store it in a place that is easy for you to find, because chances are there's something you missed the first time around.

## Features

### Common Features:

- Audiophile-quality & ultra low noise
- 4 stereo channels with 4-band EQ
- 3-band EQ with swept mid-range plus low cut on each mono channel
- 32/40-bit digital stereo multi-effect processor with 100+ tap delay plus foot switch
- 2 true subgroups with main L and R routing switches
- 2 stereo aux returns with effect to monitor level control
- Solo feature on each input and output
- XLR connectors available on main L / R output
- Built-in switching power supply with universal connector, 100-240VAC, 50/60Hz
- Rack-mounting kit included

### AM442D also features:

- 4 Mic/Line channels with inserts and phantom power
- 2 Aux sends, Aux1 with Pre/Post switch

### AM642D also features:

- 6 Mic/Line channels with inserts and phantom power
- 3 Aux sends, one with Pre/Post switch
- Stereo 9-band graphic EQ, assignable to main mix or aux 1 send

## Getting Started

1. Ensure all power is turned off on your mixer. To totally ensure this, the AC cable should not be connected to the unit.
2. All faders and level controls should be set at the lowest level and all channels switched off to ensure no sound is inadvertently sent through the outputs when the device is switched on. All levels can be altered to acceptable degrees after the device is turned on.
3. Plug all necessary instruments and equipment into the device's various inputs as required. This may include line signal devices, such as keyboards and drum machines, as well as microphones and/or guitars, keyboards, etc.
4. Plug any necessary equipment into the device's various outputs. This could include amplifiers and speakers, monitors, signal processors, and/or recording devices.
5. Plug the supplied AC cable into the AC inlet on the back of the device and a power outlet of a suitable voltage.
6. Turn the power switch on.

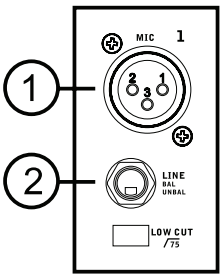
## Channel Setup

1. To ensure the correct audio level of the input channel is selected, each of the Mixer's Channel's ON buttons should be disengaged (which should turn the corresponding LED indicator off – otherwise go back and try again), as well as the SOLO buttons on each channel, and make sure that the 2T RTN knob is all the way down.
2. Ensure the channel you wish to set has a signal sent to it similar to the signal that will be sent when in common use. For example, if the channel has a microphone connected to it, then you should speak or sing at the same level the performer normally would during a performance; if a guitar is plugged into the channel, then the guitar should also be strummed as it normally would be (and so on). This ensures levels are completely accurate and avoids having to reset them later.
3. Move the Channel fader and Master L/R faders to around the 0 dB mark.
4. Turn the Channel ON.
5. Pushing the channel's SOLO button and releasing the Pre/Post button on the CTRL RM section will send the pre-fader signal of the activated channel to the Control Room / Phones mixing bus and the Level Meter will display the Control Room's signal properties.
6. Set the gain so the level meter indicates the audio level is around 0 dB.
7. This channel is now ready to be used; you can stop making the audio signal.
8. You can now repeat the same process for other channels if you wish.

# Making Connections

## Inputs and Outputs

### 1. XLR Microphone Jacks

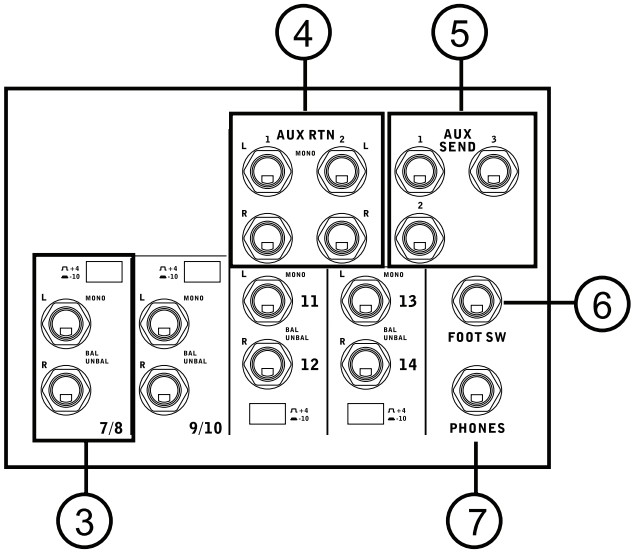



These jacks accept typical 3pin XLR inputs for balanced and unbalanced signals. They can be used in conjunction with microphones–such as professional condenser, dynamic or ribbon microphones – with standard XLR male connectors, and feature low noise preamplifiers, serving for crystal clear sound replication. The AM 442D mixer features four standard XLR microphone inputs, whereas the AM 642D features a total of six.

**NB**. When these inputs are used with condenser microphones, the Phantom Power should be activated. However, when Phantom Power is engaged, single ended (unbalanced) microphones and instruments should not be used on the Mic inputs.

### 2. Line Inputs

This input accepts typical 1/4” TRS balanced or TS unbalanced inputs, for balanced or unbalanced signals. They can be used in conjunction with a wide range of line level devices such as keyboards, drum machines, electric guitars, and a variety of other electric instruments.




### 3. Stereo Channels

The AM 442D and AM 642D also feature a few stereo channels, thrown in for maximum flexibility. Each of these stereo channels features two 1/4” phone jacks, for the addition of various line level input devices, such as electronic keyboards, guitars and external signal processors or mixers. If you wish to use a monaural device on a stereo input, simply plug the device’s 1/4” phone jack into the left (mono) input and leave the right input bare. The signal will be duplicated to the right due to the miracle of jack normalizing. The AM 442D and AM 642D feature four stereo channels and include a +4/-10dB selector switch for a maximum flexibility.

### 4. AUX Returns

These 1/4” TS inputs are for the return of audio to the AM 442D and AM 642D mixers, processed by an external signal processor. If really needed, they can also be used as additional inputs. The feed from these inputs can be adjusted using the AUX Return controls on the face of the mixer. When connecting a monaural device to the AUX Return 1 and 2 inputs, simply plug a 1/4” phone jack into the left (mono) input, and the signal will appear in the right as well. This, however, does not work for the AUX Return 2 input on both AM442D/AM642D.When the AUX Return 2 is used, the built-in digital effects processor is automatically by-passed.

### 5. AUX Sends

These 1/4” TS outputs may be used to connect to an external signal processor, or even to an amplifier and speakers (depending on your desired settings) from the mixer. The signal from the AUX Sends is controlled by the AUX master controls (on the face of the mixer), which obtain their signal from the AUX controls located on each channel strip. The AM 442D features 2 AUX sends, whereas the AM 642D features a total of 3.

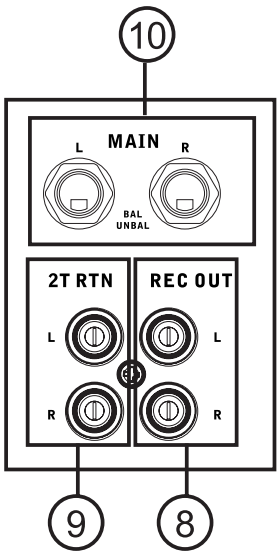
### 6. Foot Switch Jacks

This port is for the inclusion of a foot switch, used to remotely turn the Digital Effects Processor on and off.

### 7. Phones

This stereo output port is suited for use with headphones, allowing monitoring of the mix. The audio level of this output is controlled using the Control Room / Phones control.

**8. Record Out**
These outputs will accommodate RCA cables, able to be fed to a variety of recording devices.

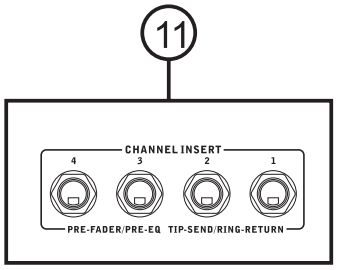



**9. 2T Return**
These RCA inputs are used to connect the mixer with external devices, such as CD, Tape and Cassette Players.

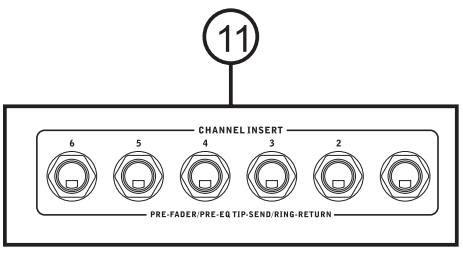
**10. Main Out**
These two XLR jacks will output the final stereo line level signal sent from the main mixing bus. The primary purpose of these jacks is to send the main output to external devices, which may include power amplifiers (and in-turn, a pair of speakers), other mixers, as well as a wide range of other possible signal processors (Equalizers, Crossovers, etcetera).

## Rear Panel

**11. Channel Inserts**
Located on the rear of the AM 442D and AM 642D, the primary use for these TRS phone jacks is for the addition of external devices, such as dynamic processors or equalizers, to mono input channels 1 through to 4 on the AM 442D and 1 through 6 on the AM 642D. This send and return will require a Y cord that can send (pre-fader and pre-EQ) and receive signals to and from an external processor.




AM442D

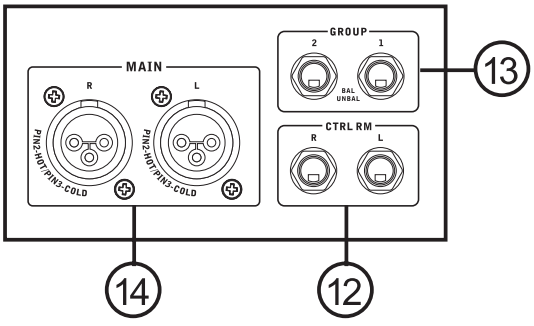



AM642D

**12. Control Room Outputs**
These two 1/4” phone jack outputs feed the signal altered by the Control Room / Phones level control on the face of the mixer. This output has extensive use, as it can be used to feed the signal from the mixer to an active monitor, for the monitoring of the audio signal from within a booth, or, alternatively, for the addition of external signal processing devices or mixers, as well as acting as a “side fill” output, supplying audio to indoor areas that the main speakers do not reach.

**13. Group Out**
These 1/4” phone jacks output the final feed from the Group 1 and 2 Faders on the main mixer. These outputs can be used to feed a wide range of devices, such as mixers, signal processors, and even to connect an amplifier and speakers to be used along with the Main Speakers, for a more rounded audio experience.

**14. Main Out**
These two XLR ports will output the final stereo line level signal sent from the main mixing bus. The primary purpose of these jacks is to send the main output to external devices, which may include power amplifiers (and in-turn, a pair of speakers), other mixers, as well as a wide range of other possible signal processors (equalizers, crossovers, etcetera).

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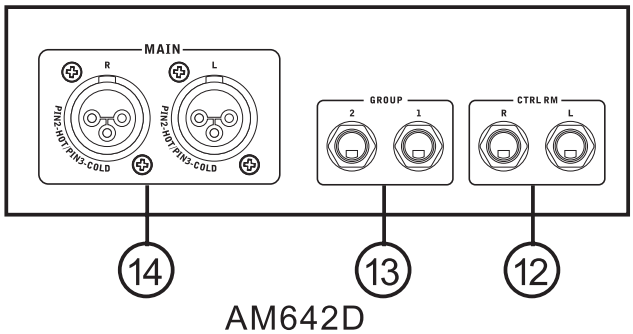



AM642D

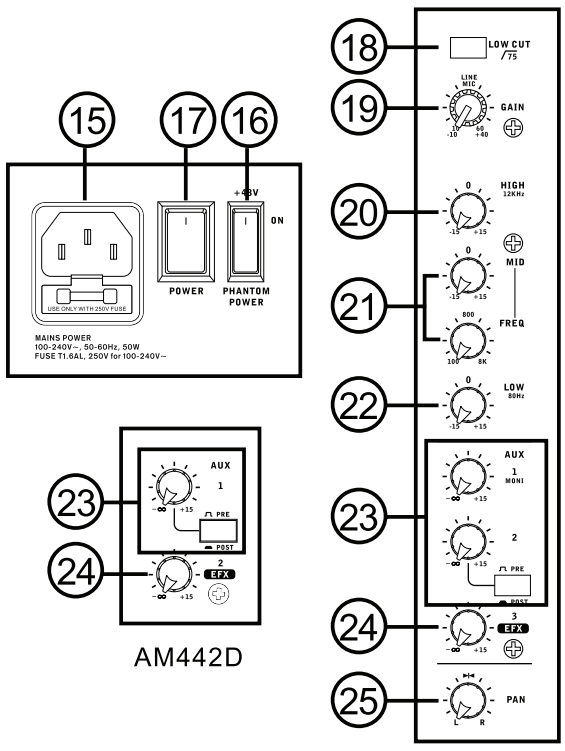
**15. Power Connector**
This port is for the addition of a power cable, allowing power to be supplied to the mixer. Please use the power cable that is included with this mixer only.

# Controls and Settings

## Rear Panel

**16. Phantom Power Switch**
When this switch is in the on position, it activates +48V of phantom power for all microphone inputs, allowing condenser microphones (well, the ones that don't use batteries) to be used on these channels. Activating Phantom Power will be accompanied by an illuminated LED above the left channel Level Meter. Before turning Phantom Power on, turn all level controls to a minimum to avoid the possibility of a ghastly popping sound from the speakers.
NB. Phantom Power should be used in conjunction with balanced microphones. When Phantom Power is engaged, single ended (unbalanced) microphones and instruments should not be used on the Mic inputs. Phantom Power will not cause damage to most dynamic microphones. If unsure, however, the microphone's user manual should be consulted.

**17. Power Switch**
This switch is used to turn the mixer on and off. Ensure you turn all level controls down before activating.



AM442D

## Channel Controls

**18. Low Cut Filter (75 Hz)**
This button will activate a high-pass filter that reduces all frequencies below 75 Hz at 18 dB per Octave, helping to remove any unwanted ground noise or stage rumble. This Low Cut Filter is only available on Mic channels on both the AM 442D and AM 642D.

**19. Line/Mic Gain Control**
This controls the sensitivity of the input signal of the Line/Microphone input. The gain should be adjusted to a level that allows the maximum use of the audio, while still maintaining the quality of the feed. This can be accomplished by adjusting it to a level that will allow the peak indicator occasionally illuminate.

**20. High Frequency Control**
This control is used to give a shelving boost or cut of ±15 dB to high frequency (12 kHz) sounds. This will adjust the amount of treble included in the audio of the channel, adding strength and crispness to sounds such as guitars, cymbals, and synthesizers.

**21. Middle Frequency Control**
This control is used to provide a peaking style of boost and cut to the level of middle frequency sounds at a range of ±15 dB. These mixers also provide a sweep control, allowing you to select a center frequency between 100 Hz and 8 kHz. Changing middle frequencies of an audio feed can be rather difficult when used in a professional audio mix, as it is usually more desirable to cut middle frequency sounds rather than boost them, soothing overly harsh vocal and instrument sounds in the audio.
The stereo channels feature High-Mid and Low-Mid controls instead of the typical controls described above. They provide a peaking style of boost and cut to middle frequencies, where the frequencies are set at 3 kHz and 800 Hz, respectively.

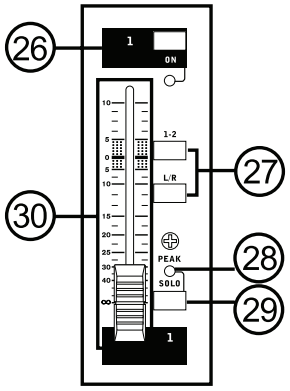
**22. Low Frequency Control**
This control is used to give a shelving boost or cut of ±15 dB to low frequency (80 Hz) sounds. This will adjust the amount of bass included in the audio of the channel, and bring more warmth and punch to drums and bass guitars.

**23. AUX Control**
This control alters the signal level that is being sent to the auxiliary 1 mixing bus, the signal of which is suitable for connecting stage monitors, allowing artists to listen to the music that is being played. Also included is a Pre/Post button which alternates the feed to the AUX mixing bus between a post and pre-fader feed.

**24. EFX Control**
This control alters the signal level that is sent to the EFX send (AUX 2 on the AM 442D, AUX 3 on the AM 642D) output and the built-in digital effect processor. The EFX send signal can be used in conjunction with external signal processors (this signal of which can be returned to mixer via the AUX return input), or simply as an additional auxiliary output.

**25. Pan / Balance Controls**
This alternates the degree or level of audio that the left and right side of the main mix should receive. On Mic channels, the PAN control will adjust the level that the left and right should receive (pan), where as on a stereo channel, adjusting the BAL control will attenuate the left or right audio signals accordingly (balance).

**26. On Button and Indicator**
This turns the channel on, allowing the user to use the feed from the channel's inputs to supply the MAIN L/R, GROUP 1/2, AUX and EFX buses. The corresponding indicator will be illuminated when turned on.




**27. 1-2 and L/R Buttons**
These handy buttons allow you to decide the audio path of the corresponding channel. Pushing the "1-2" button allows the signal to be sent to the Group 1-2 mix, where the "L/R" allows it to be sent to the Main L/R mix.

**28. Peak Indicator**
This LED indicator will illuminate when the channel hits high peaks, 6 dB before overload occurs. It is best to adjust the channel level control to a level slightly prior to the peak indicator does not light up. This will ensure a greater dynamic range of audio. This indicator also doubles as a Solo indicator, when the SOLO button is engaged.

**29. Solo Button**
The Solo button is pushed to allow the signal of a corresponding channel to be sent to the Control Room / Phones control. The signal is either that of a pre- or post-fader depending on the pre/post button in the master section.

**30. Level Faders**
These faders allow users to adjust the level of the signal from the corresponding input channel that is to be sent to the destinations selected by the 1-2 and L/R buttons.

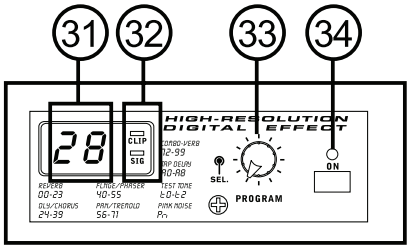
## Digital Effect Processor

**31. Digital Effect Display**
This 2-digital numeric display shows the program number that is currently applied to your EFX audio signal. When you rotate the Program control, you can scroll through different program numbers; however the display will revert back to the original program if a new program is not selected within a few seconds. For a list of available effects, please observe the Digital Effect Table.(When the Digital Effect Processor is put into stand-by mode (by use of the foot switch or on button) the 2 small dots within the numeric display will flash. In this mode, users are still able to preview and select new effect programs.)

**32. Sig and Clip Indicators**
Located within the Digital Effect Display are Clip and Sig LEDs. The Sig LED will light up when any signal is received by the effect processor, and the Clip LED will light up shortly before excessive signals are dynamically clipped. If the Clip LED lights up too often, it may be advisable to turn down one or all EFX controls on input channels to ensure the signal level is not too high.

**33. Program Control**
This control is used to scroll through the various effects. Turning the control clockwise will allow users to ascend into higher program numbers, and turning it counter-clockwise will allow users to descend into lower program numbers. Pushing this control will apply the new effect. When a tap-delay effect is selected, pressing this control will allow users to select the tap-delay time.
By pushing the button several times, the effect processor interprets the time between last two pushes and remembers this as the delay time, until the button is pushed again (this is kept, even after the power is turned off). When the tap delay effect is selected, a small LED will flash within the digital effect display window at the selected intervals.

**34. DFX On Button and Indicator (AM642D only)**
This button will turn the Digital Effect processor on and off. Activation of the Effect Processor will cause the accompanying LED indicator to light up.



## Master Section

**35. AUX Return Controls**
These controls adjust the signal level of audio fed through to the stereo AUX Return inputs. The "To AUX 1" control adjusts the pre-fader level of the signal from the AUX Return inputs to the AUX 1 mixing buses.

**36. EFX Return (AUX Return 2) Control**
This control adjusts the signal level of audio fed through to stereo AUX Return 2 inputs. If no device is plugged into the AUX Return 2 inputs, this control then acts as the final level control of the built-in Digital Effect Engine.

**37. Main L/R and Group 1-2 Buttons**
The EFX Return control on the AM442D is accompanied by a Main L/R / Group 1-2 button. In the case of the AM642, there are 2 buttons: one for Main L/R and one for Group 1-2, both of which can be used simultaneously. In both cases, however, these buttons change the destination of the EFX Return signal between the Main L/R signal and/or Group 1-2 sub mix.

**38. Return Solo Buttons (AM642D)**
Pushing either of the AM642D's Return Solo buttons allows users to send the signal from the AUX Returns 1 and/or 2 to the Control Room / Phones mixing bus.

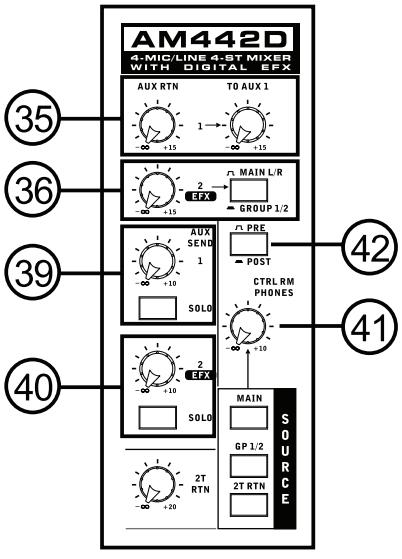
**39. AUX Send Master Control**
This control adjusts the final level of the AUX mixing bus (as taken from the AUX level controls on each channel strip), the audio of which is sent to AUX Send output. The corresponding SOLO button allows you to send the AUX Send signal to the Control Room / Phones mixing bus. The AM 642D features 3 sends, where the first is in fact a 60mm fader, rather than the simple rotary control. Also incorporated with the AUX 1 control of the AM 642D is a Peak LED, as well as an ON button and indicator, allowing AUX 1 to be activated and muted when required. Activation of AUX Send 1 is, of course, accompanied by an illuminated LED.

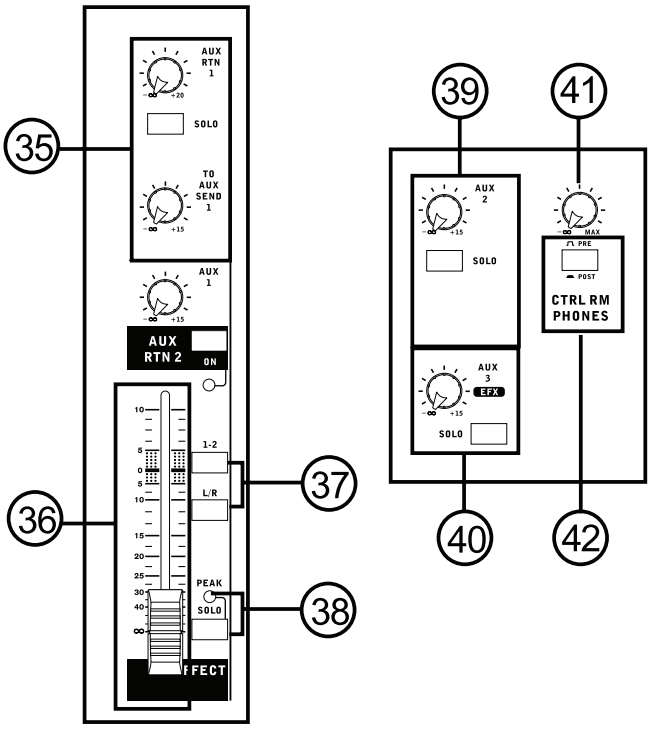
**40. EFX Send Master Control**
This control adjusts the final level of the EFX mixing bus (as taken from the EFX level controls on each channel strip), the audio of which is sent to the AUX Send 2 (on the AM 442D) or the AUX Send 3 (on the AM 642D) outputs, as well as the built-in digital effect engine. The corresponding SOLO button allows you to send the signal to the Control Room / Phones mixing bus.

**41. Control Room / Phones Controls**
This control is used to adjust the audio level of the Phones feed, as well as the signal sent to the Control Room output, for use in monitoring and tracking of audio.

| Priority | Signal |
|---|---|
| Highest | From Solo |
| Medium | 2T Return to Control Room |
| Lowest | Main L/R |

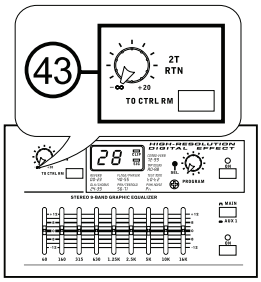
**42. Pre / Post Control**
This button alternates the Control Room / Phones source signals between those of post-fader and pre-fader feeds.



### 43. 2T Return Controls

Turning the 2T Return level control adjusts the signal level of the feed from the 2T Return inputs, the signal of which is sent to the Main L/R mixing bus. Pushing the “to Ctrl Rm” button (featured on the AM642D only) sends the signal to the Control Room/Phones mixing bus also.




### 44. +48V Indicator

This indicator will illuminate when Phantom Power is activated.

### 45. Power Indicator

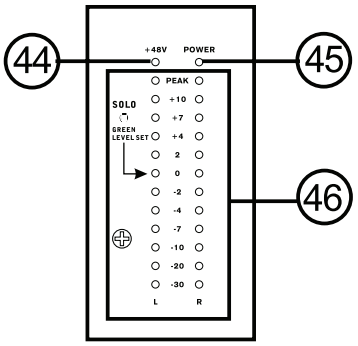
The Power Indicator will light up when the power of the mixer is on; in case you weren’t too sure.

### 46. Level Meter

This dual 12-segment level meter gives an accurate indication of when audio levels of the Main L/R output reach certain levels. The 0 dB indicator illuminates is approximately equal to an output level of +4 dBu (balanced), and the PEAK indicator illuminates slightly before the signal is dynamically clipped. It is suggested that users set the various levels controls so that the level meter sits steadily around the 0 dB mark to make full use of the audio while still maintaining fantastic clarity.

When the Solo indicator (located beside the Level Meter) is illuminated, one or more Solo buttons has been pushed and the Level meter will display properties of the Solo signal, which can be helpful with setting of channel properties. If Solo indicator illuminates green, this means the Solo feed is a pre-fader signal. If the solo indicator illuminates red, the feed is post-fader. If the no Solo buttons are activated, the 2T Return signal properties are displayed by the Level Meter, unless the "To Ctrl Rm" button is not pressed, in which case the Main L-R signal properties will be displayed.

| Priority | Signal |
|---|---|
| Highest | From Solo |
| Medium | 2T Return to Control Room |
| Lowest | Main L/R |

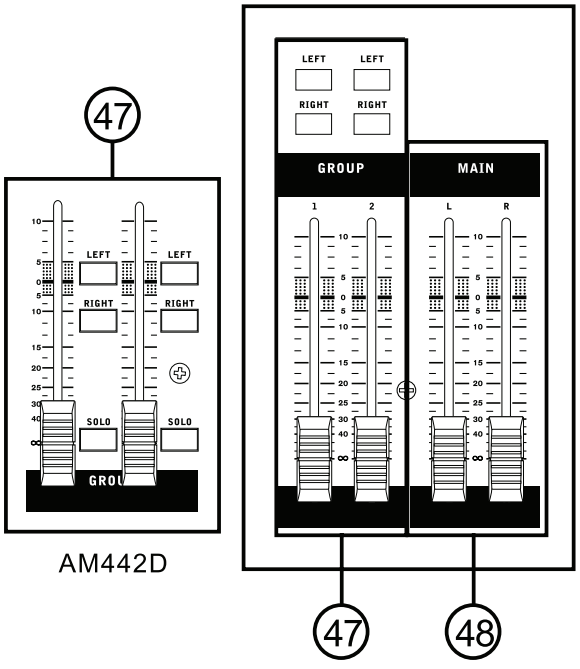



### 47. Group Controls

These two faders are the final level control for the Group 1 and 2 audio feeds, sent to the Group 1 and 2 outputs. These faders can be fed a signal from the various mono and stereo channels, as well as EFX Returns, depending on your selections. When pushed all the way up, these faders provide 10 dB of gain to the signal, and, when set all the way down, effectively mute the signal. The Group Controls also feature Left and Right buttons, which allow you to send the Group 1-2 signals to the Main Left and Right mixing buses. The AM442D also features a solo button accompanying each of the Group controls.

### 48. Main L/R Faders

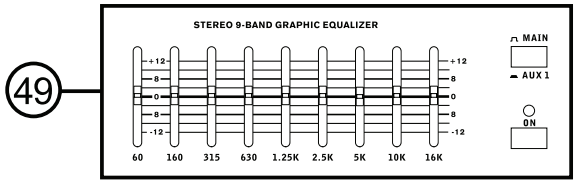
These two faders are the final level control for the Main Left and Right audio feeds, sent to the Main L and R outputs. These faders are possibly fed by the various mono and stereo channels, as well as AUX and EFX returns and 2T inputs, depending on the your selections. When pushed all the way up, these faders provide 10 dB of gain to the signal, and, when set all the way down, effectively mute the signal.




AM442D

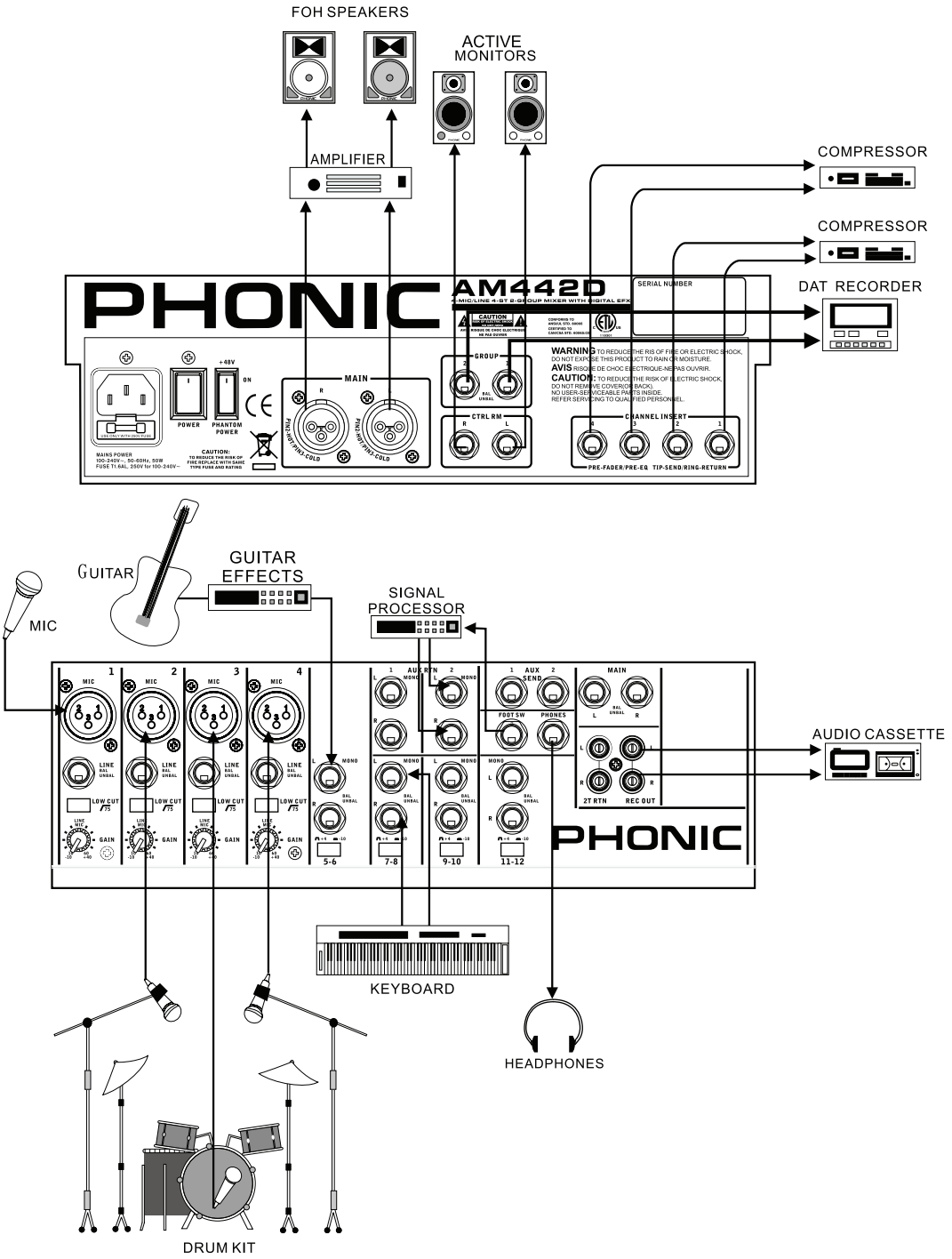
**49. Graphic Equalizer (AM 642D)**

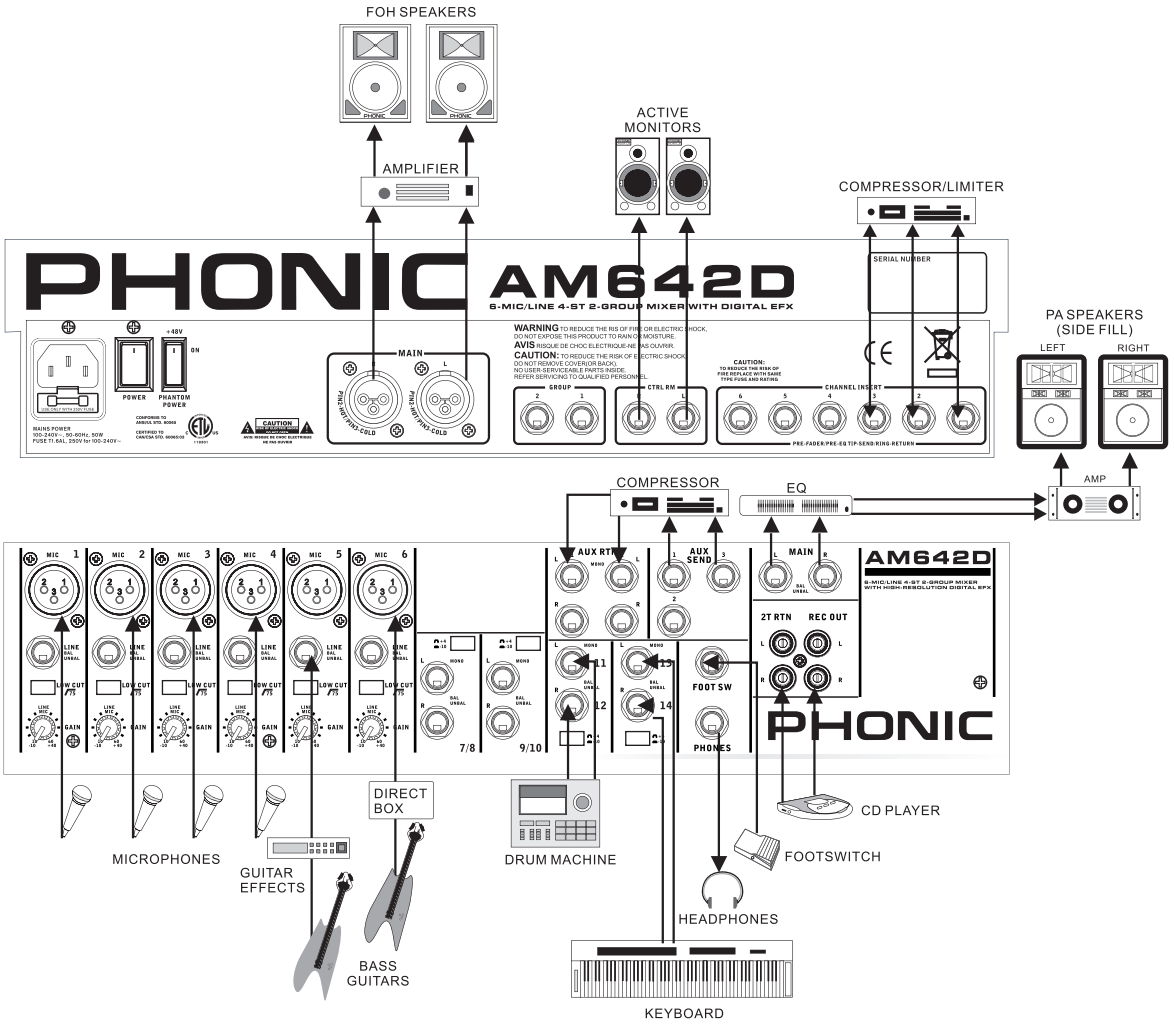
This stereo 9 band graphic equalizer allows the user to adjust the frequency response of a signal, with a maximum of ±12 dB of signal boost or cut for each of the frequencies. The AUX 1 / MAIN switch alternates the use of the equalizer between the use of the AUX 1 bus and MAIN L/R bus signals. Pushing the on button in activates the equalizer, which is accompanied by an illuminated LED.



## Application

On the following couple of pages you will find a wide range of possible uses for the AM mixers. Of course these are far from the only applications that can be attributed to the mixers' use, however they should give you an idea of the possible uses that the various inputs and outputs have. The right combination of microphones, guitars, drum machines, keyboards, as well as recording devices, signal processors, amplifiers and speakers, can make for the perfect live performance, home studio recording session or even a basic public address, to name a few.




FOH SPEAKERS
ACTIVE MONITORS
AMPLIFIER
COMPRESSOR/LIMITER
PHONIC AM642D
6-MIC/LINE 4-ST 2-GROUP MIXER WITH DIGITAL EFX
SERIAL NUMBER
PA SPEAKERS (SIDE FILL)
LEFT
RIGHT
COMPRESSOR
EQ
AMP
DIRECT BOX
MICROPHONES
GUITAR EFFECTS
BASS GUITARS
DRUM MACHINE
CD PLAYER
FOOTSWITCH
HEADPHONES
KEYBOARD

# DIGITAL EFFECT TABLE

| NO | PROGRAM NAME | PARAMETER SETTING | |
|---|---|---|---|
| | **ROOM** | **REV-TIME** | **EARLY LEVEL** |
| 00 | COMPACT ROOM 1 | 0.05 | 100 |
| 01 | COMPACT ROOM 2 | 0.4 | 0 |
| 02 | SMALL ROOM 1 | 0.45 | 100 |
| 03 | SMALL ROOM 2 | 0.6 | 90 |
| 04 | MID ROOM 1 | 0.9 | 100 |
| 05 | MID ROOM 2 | 1 | 50 |
| 06 | BIG ROOM 1 | 1.2 | 100 |
| 07 | TUNNEL | 3.85 | 100 |
| | **HALL** | **REV-TIME** | **EARLY LEVEL** |
| 08 | JAZZ CLUB | 0.9 | 90 |
| 09 | SMALL HALL 1 | 1.5 | 72 |
| 10 | SMALL HALL 2 | 1.75 | 85 |
| 11 | SPRING HALL | 1.9 | 98 |
| 12 | MID HALL 1 | 2.3 | 100 |
| 13 | MID HALL 2 | 2.45 | 80 |
| 14 | RECITAL HALL | 2.7 | 96 |
| 15 | BIG HALL 2 | 3.3 | 88 |
| | **PLATE** | **REV-TIME** | **HPF** |
| 16 | SMALL PLATE | 0.9 | 0 |
| 17 | TAIL PLATE | 1.2 | 20 |
| 18 | MID PLATE 1 | 1.3 | 0 |
| 19 | MID PLATE 2 | 2.2 | 0 |
| 20 | REVERSE PLATE | 2.25 | 42 |
| 21 | LONG PLATE 1 | 2.6 | 80 |
| 22 | LONG PLATE 2 | 3 | 625 |
| 23 | LONG PLATE 3 | 4.2 | 0 |
| | **DELAY-1(stereo)** | **DELAY AVERG.** | **R-LEVEL** |
| 24 | SHORT DELAY 1 | 0.07 | 60 |
| 25 | SHORT DELAY 2 | 0.14 | 60 |
| 26 | PING PONG DELAY | 0.11 | 55 |
| 27 | MID DELAY 1 | 0.15 | 55 |
| 28 | MID DELAY 1 | 0.3 | 60 |
| 29 | SHORT DELAY 1 (MONO) | 0.06 | 100 |
| 30 | MID DELAY 1 (MONO) | 0.13 | 100 |
| 31 | LONG DELAY 1 (MONO) | 0.18 | 100 |
| | **CHORUS** | **LFO** | **DEPTH** |
| 32 | SOFT CHORUS | 0.2 | 56 |
| 33 | SOFT CHORUS 2 | 0.5 | 70 |
| 34 | SOFT CHORUS 3 | 0.8 | 75 |
| 35 | WARM CHORUS | 1.8 | 85 |
| 36 | WARMER CHORUS 1 | 3.2 | 80 |
| 37 | WARMER CHORUS 2 | 5.2 | 45 |
| 38 | WARMER CHORUS 3 | 7.8 | 52 |
| 39 | HEAVY CHORUS | 9.6 | 48 |
| | **FLANGER** | **LFO** | **DEPTH** |
| 40 | CLASSIC FLANGER 1 | 0.1 | 44 |
| 41 | CLASSIC FLANGER 2 | 0.3 | 63 |
| 42 | GENTLE FLANGER | 0.6 | 45 |
| 43 | WARM FLANGER | 1.6 | 60 |
| 44 | MODERN FALANGER 1 | 2 | 85 |
| 45 | MODERN FALANGER 2 | 2.8 | 80 |
| 46 | DEEP FALANGER 1 | 4.6 | 75 |
| 47 | DEEP FALANGER 2 | 10 | 60 |
| | **PHASER** | **LFO** | **DELAY** |
| 48 | CLASSIC PHASER 1 | 0.1 | 3.6 |
| 49 | CLASSIC PHASER 2 | 0.4 | 2.6 |
| 50 | COOL PHASER | 1.4 | 0.7 |
| 51 | WARM PHASER | 3.2 | 0.3 |
| 52 | HEAVY PHASER 1 | 5 | 1.2 |
| 53 | HEAVY PHASER 2 | 6 | 2.8 |
| 54 | WILD PHASER 1 | 7.4 | 0.8 |
| 55 | WILD PHASER 2 | 9.6 | 4.8 |

| NO | PROGRAM NAME | PARAMETER SETTING | |
|---|---|---|---|
| | **PAN** | **SPEED** | **TYPE** |
| 56 | SLOW PAN | 0.1 | R-->L |
| 57 | SLOW PAN 1 | 0.1 | R<-->L |
| 58 | SLOW PAN 2 | 0.4 | R-->L |
| 59 | MID SHIFT | 0.8 | R<-->L |
| 60 | MID SHIFT 1 | 1.2 | L-->R |
| 61 | MID SHIFT 2 | 1.8 | L-->R |
| 62 | MID SHIFT 3 | 1.8 | R-->L |
| 63 | FAST MOVE | 3.4 | R<-->L |
| | **TREMOLO** | **SPEED** | **MODE-TYPE** |
| 64 | LAZY TREMOLO | 0.8 | TRG |
| 65 | VINTAGE TREMOLO | 1.5 | TRG |
| 66 | WARM TREMOLO | 2.8 | TRG |
| 67 | WARM TREMOLO 1 | 4.6 | TRG |
| 68 | HOT TREMOLO | 6.8 | TRG |
| 69 | HOT TREMOLO 1 | 9.6 | TRG |
| 70 | CRAZY TREMOLO 1 | 15 | TRG |
| 71 | CRAZY TREMOLO 2 | 20 | TRG |
| | **DELAY+REV** | **REV** | **DELAY-1** |
| 72 | DELAY+REV 1 | 1 | 1 |
| 73 | DELAY+REV 2 | 2 | 2 |
| 74 | DELAY+REV 3 | 3 | 3 |
| 75 | DELAY+REV 4 | 4 | 4 |
| 76 | DELAY+REV 5 | 5 | 5 |
| 77 | DELAY+REV 6 | 6 | 6 |
| 78 | DELAY+REV 7 | 7 | 7 |
| 79 | DELAY+REV 8 | 8 | 8 |
| | **CHORUS+REV** | **REV** | **CHORUS** |
| 80 | CHORUS+REV 1 | 1 | 1 |
| 81 | CHORUS+REV 2 | 2 | 2 |
| 82 | CHORUS+REV 3 | 3 | 3 |
| 83 | CHORUS+REV 4 | 4 | 4 |
| 84 | CHORUS+REV 5 | 5 | 5 |
| 85 | CHORUS+REV 6 | 6 | 6 |
| 86 | CHORUS+REV 7 | 7 | 7 |
| 87 | CHORUS+REV 8 | 8 | 8 |
| | **FLANGER+REV** | **REV** | **FLANGER** |
| 88 | FLANGER+REV 1 | 1 | 1 |
| 89 | FLANGER+REV 2 | 2 | 2 |
| 90 | FLANGER+REV 3 | 3 | 3 |
| 91 | FLANGER+REV 4 | 4 | 4 |
| 92 | FLANGER+REV 5 | 5 | 5 |
| 93 | FLANGER+REV 6 | 6 | 6 |
| 94 | FLANGER+REV 7 | 7 | 7 |
| 95 | FLANGER+REV 8 | 8 | 8 |
| | **GATED-REV** | **RELEASE** | **REV** |
| 96 | GATED-REV-1 9 | 0.02 | TAIL PLATE |
| 97 | GATED-REV-2 10 | 0.2 | TAIL PLATE |
| 98 | GATED-REV-1 9 | 0.02 | REVERSE PLATE |
| 99 | GATED-REV-2 10 | 0.5 | REVERSE PLATE |
| | **TAP DELAY** | **FB LEVEL** | **RANGE** |
| A0 | TAP DELAY | 0 | 100mS - 2.7S |
| A1 | TAP DELAY | 10 | 100mS - 2.7S |
| A2 | TAP DELAY | 20 | 100mS - 2.7S |
| A3 | TAP DELAY | 30 | 100mS - 2.7S |
| A4 | TAP DELAY | 40 | 100mS - 2.7S |
| A5 | TAP DELAY | 50 | 100mS - 2.7S |
| A6 | TAP DELAY | 60 | 100mS - 2.7S |
| A7 | TAP DELAY | 70 | 100mS - 2.7S |
| A8 | TAP DELAY | 80 | 100mS - 2.7S |
| | **TEST TONE** | **FREQUENCY** | **SHAPE** |
| T0 | LOW FREQUENCY | 100Hz | SINEWAVE |
| T1 | MID FREQUENCY | 1kHz | SINEWAVE |
| T2 | HIGH FREQUENCY | 10kHz | SINEWAVE |
| PN | PINK NOISE | 20Hz~20kHz | |

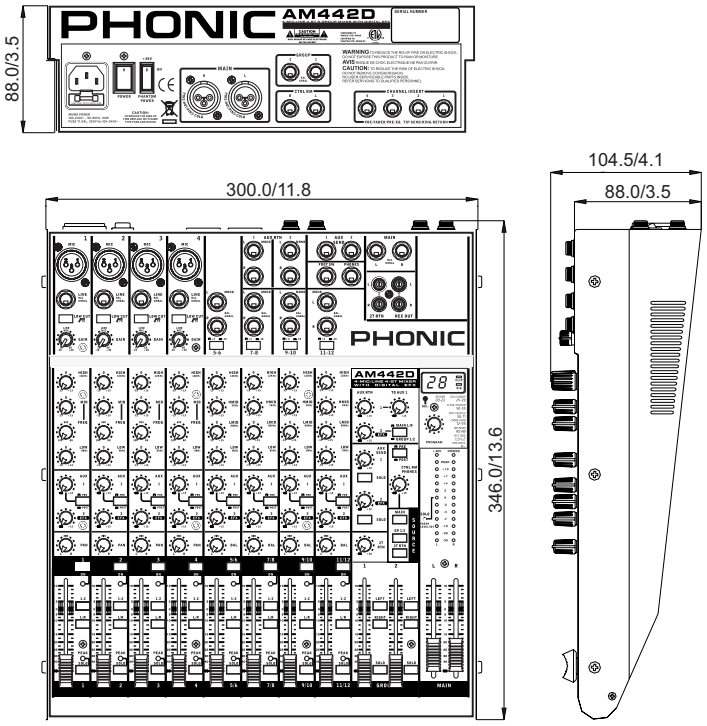
## SPECIFICATIONS

| | AM442D | AM642D |
|---|---|---|
| **Inputs** | | |
| **Total Channels** | 8 | 10 |
| Balanced Mono Mic / Line channel | 4 | 6 |
| Balanced Stereo Line Channel | 4 | 4 |
| Aux Return | 2 stereo | 2 stereo |
| 2T Input | Stereo RCA | Stereo RCA |
| **Outputs** | | |
| Main L/R Stereo | 2 x 1/4” TRS, Bal. & 2 x XLR | 2 x 1/4” TRS, Bal. & 2 x XLR |
| Rec Out | Stereo RCA | Stereo RCA |
| CTRL RM L/R | 2 x 1/4” TS | 2 x 1/4” TS |
| Phones | 1 | 1 |
| **Channel Strips** | 8 | 10 |
| Aux Sends | 2 | 3 |
| Pan/Balance Control | Yes | Yes |
| Channel insert | CH 1~ CH 4 | CH 1~ CH 6 |
| Volume Controls | 60mm fader | 60mm fader |
| Master Section | | |
| Aux Send Masters | 2 | 3 |
| **Master Aux Send Solo** | 2 | 3 |
| **Stereo Aux Returns** | 2 | 2 |
| **Aux Return Assign to Subgroup** | 1 | 1 |
| **Effects Return to Monitor** | 2 | 2 |
| **Global AFL/PFL Solo Mode** | Yes | Yes |
| Phones Level Control | Yes | Yes |
| **Faders** | 2 subgroups, Main L & R | Aux return 2, Aux 1, 2 subgroups, Main L & R |
| **Metering** | | |
| Number of Channels | 2 | 2 |
| Segments | 12 | 12 |
| **Phantom Power Supply** | +48V DC | +48V DC |
| Switches | Master | Master |
| **32/40-bit Digital Effect Processor** | 100 effects with tap delay control, Test tone and foot switch (effect on/off) | 100 effects with tap delay control, Test tone and foot switch (effect on/off) |
| **Built-in Graphic EQ** | N/A | Stereo 9-band |
| Center Frequency | | 60, 160, 315, 630, 1.25K, 2.5K, 5K, 10K, 16K Hz |
| Range | | ±12 dB |
| **Frequency Response (Mic input to any output)** | | |
| 20Hz ~ 60KHz | +0/-1 dB | +0/-1 dB |
| 20Hz ~ 100KHz | +0/-3 dB | +0/-3 dB |

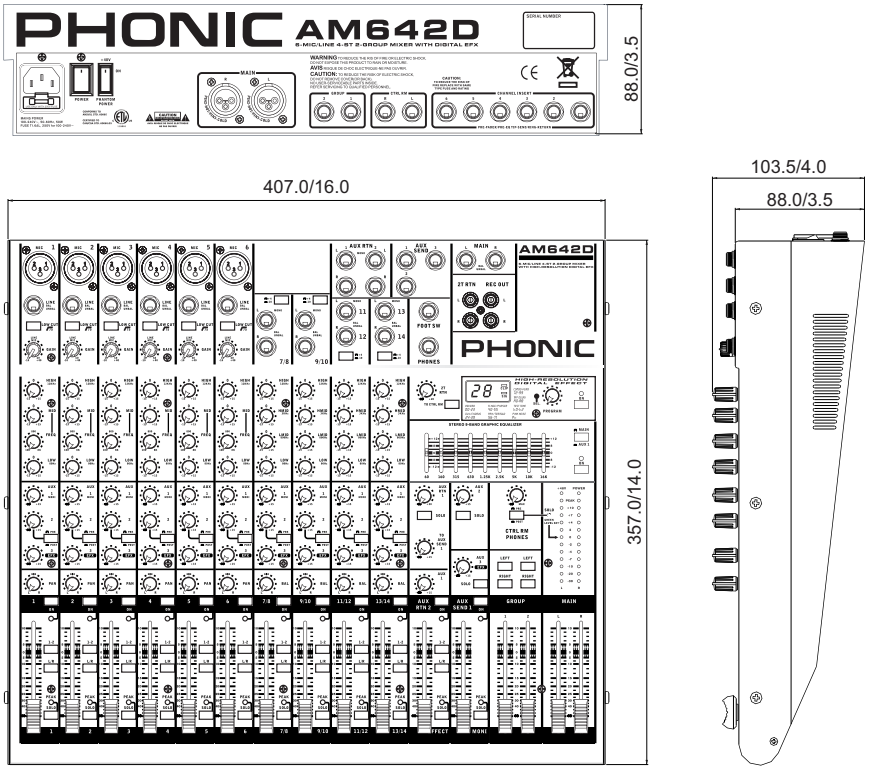
| | | |
|---|---|---|
| **Crosstalk** (1KHz @ 0dBu, 20Hz to 20KHz bandwidth, channel in to main L/R outputs) | | |
| Channel fader down, other channels at unity | <-90 dB | <-90 dB |
| **Noise** (20Hz~20KHz; measured at main output, Channels 1-4 unit gain; EQ flat; all channels on main mix; channels 1/3 as far left as possible, channels 2/4 as far right as possible. Reference=+6dBu) | | |
| Master @ unity, channel fader down | -86.5 dBu | -86.5 dBu |
| Master @ unity, channel fader @ unity | -84 dBu | -84 dBu |
| S/N ratio, ref to +4 | >90 dB | >90 dB |
| **Microphone Preamp E.I.N. (150 ohms terminated, max gain)** | <-129.5 dBm | <-129.5 dBm |
| **THD** (Any output, 1KHz @ +14dBu, 20Hz to 20KHz, channel inputs) | <0.005% | <0.005% |
| **CMRR** (1 KHz @ -60dBu, Gain at maximum) | 80dB | 80dB |
| **Maximum Level** | | |
| Mic Preamp Input | +10dBu | +10dBu |
| All Other Input | +21dBu | +21dBu |
| Balanced Output | +28dBu | +28dBu |
| **Impedance** | | |
| Mic Preamp Input | 2 K ohms | 2 K ohms |
| All Other Input (except insert) | 10 K ohms | 10 K ohms |
| RCA 2T Output | 1.1 K ohms | 1.1 K ohms |
| **Ch Equalization** | 3-band, +/-15dB (4-band on Stereo Ch) | 3-band, +/-15dB (4-band on Stereo Ch) |
| Low EQ | 80Hz | 80Hz |
| Mid EQ (mono channel) | 100-8k Hz, sweepable | 100-8k Hz, sweepable |
| LMid EQ (stereo channel) | 800 Hz | 800 Hz |
| HMid EQ (stereo channel) | 3 kHz | 3 kHz |
| Hi EQ | 12 kHz | 12 kHz |
| Low cut filter | 75 Hz (-18 dB/oct) | 75 Hz (-18 dB/oct) |
| **Built-in Power Supply** | 100-240 VAC, 50/60 Hz | 100-240 VAC, 50/60 Hz |
| **Weight** | 9.25 lbs (4.2 kg) | 10.6 lbs (4.8 kg) |
| **Dimensions (WxHxD)** | 11.8” x 3.5” x 13.4” (300 x 89 x 340 mm) | 16” x 3.5” x 14” (407 x 89 x 357 mm) |

# DIMENSIONS

## AM442D

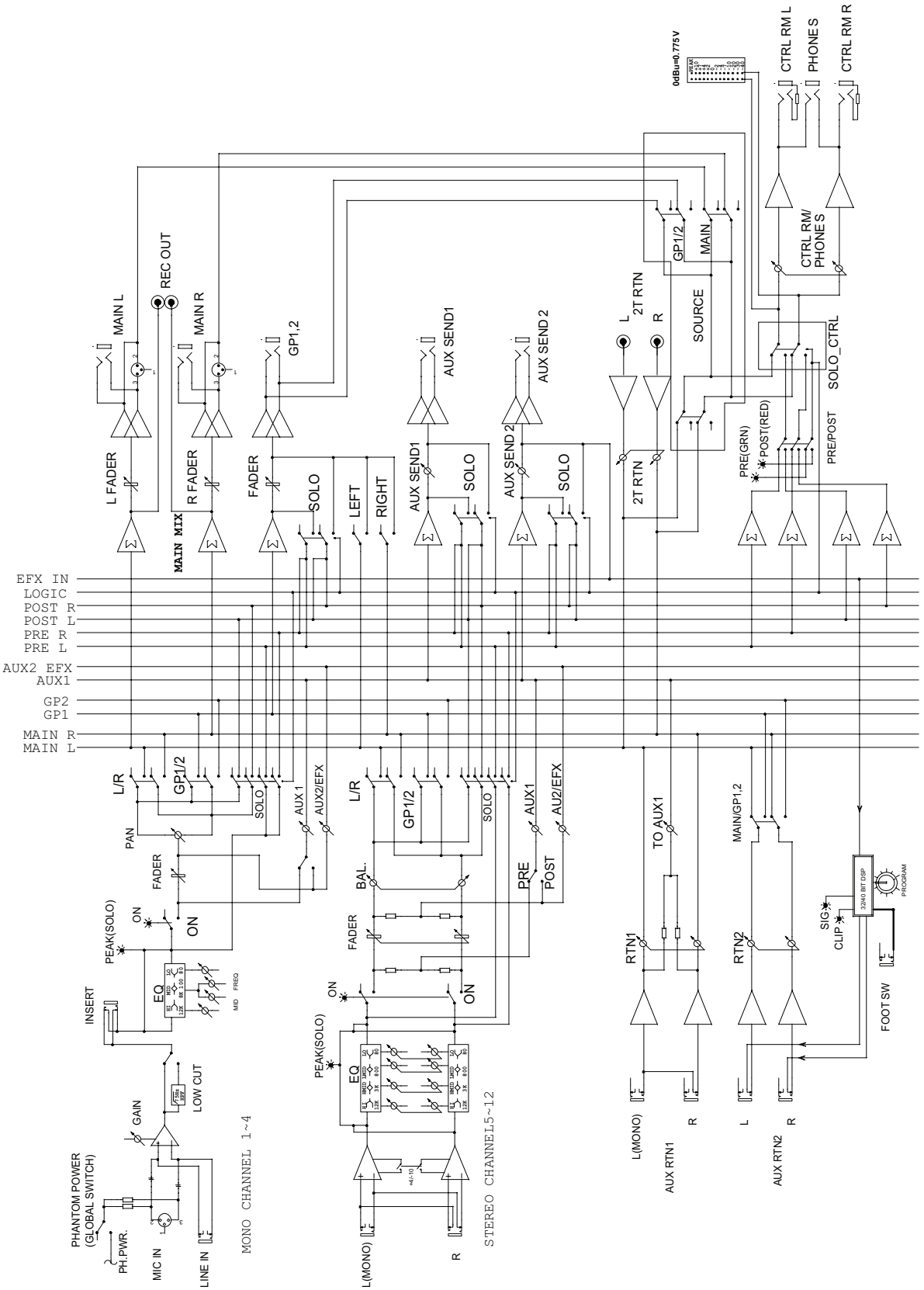



## AM642D

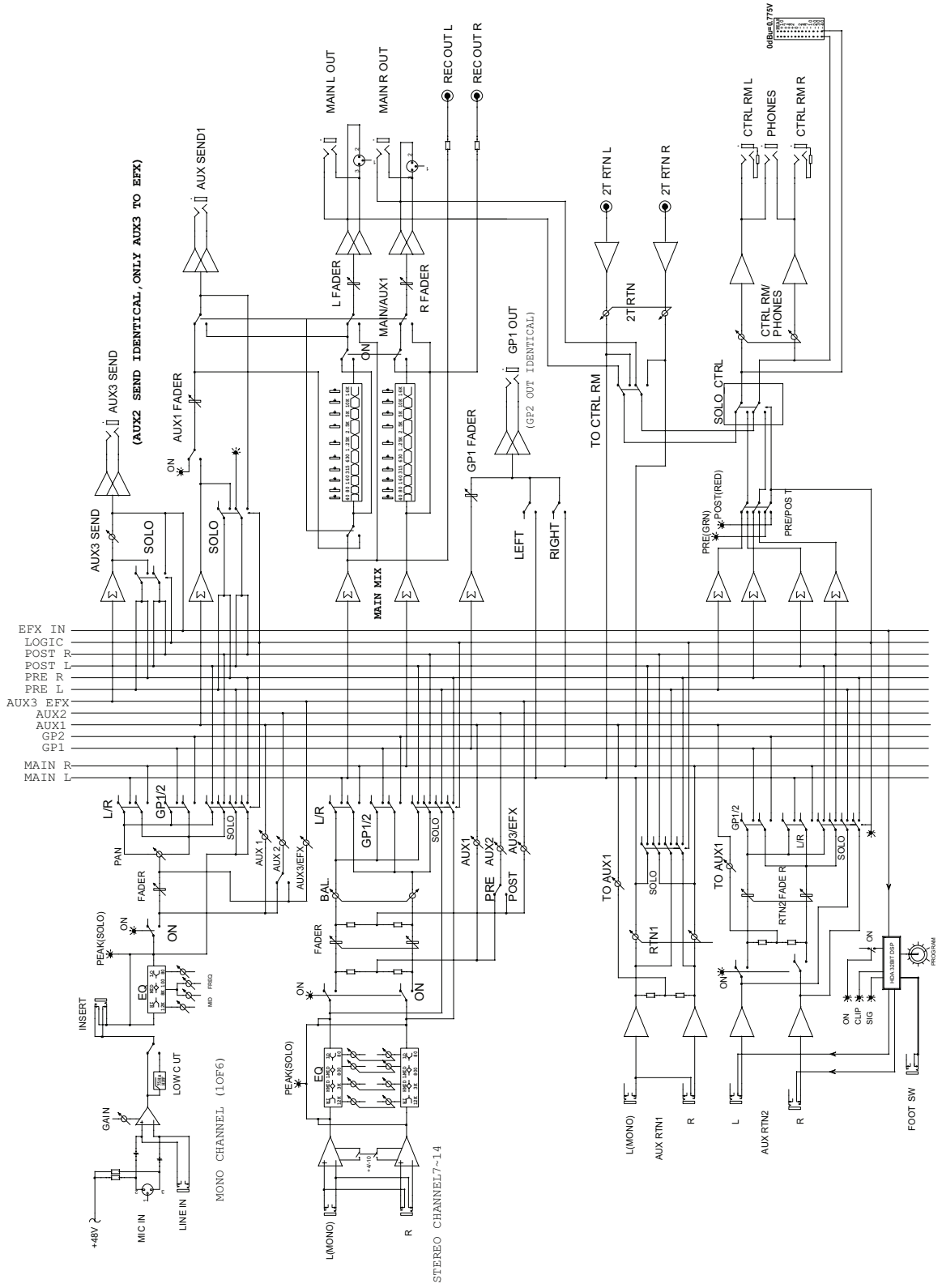


# BLOCK DIAGRAMS

## AM442D BLOCK DIAGRAMS



## AM642D BLOCK DIAGRAMS



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